

## UNITED STATES STOVE COMPANY

227 INDUSTRIAL PARK ROAD • P.O. BOX 151 • SOUTH PITTSBURG, TN. 37380 • (423)-837-2100

Natural Gas Model C9947N Supplemental Heater





Propane (LPG) Gas Model C9947L Supplemental Heater



## **Owner's Operation and Installation Manual**

This appliance may be installed in an aftermarket\* manufactured (mobile) home, where not prohibited by state or local codes.

\*Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer

This appliance is only for use with the type gas indicated on the rating plate. This appliance is not convertible for use with other gases.

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to "Adequate Combustion And Ventilation Air" on page(s) 6 of this manual.

#### **WARNING:**

Do not use a blower insert, heat exchanger insert or other accessories not approved for use with this heater.

Save this manual for future reference.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

~Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

#### ~WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- ~Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

## TABLE OF CONTENTS

SECTION	PAGE
IMPORTANT SAFETY INFORMATION	3-4
PRODUCT FEATURES	4
9947 SPECIFICATIONS	5
CONTENTS	5
ITEMS REQUIRED FOR INSTALLATION	6
INSTALLATION	7
MANTEL CLEARANCES	8
GAS CONNECTION	9-10
GAS PRESSURE CHECK	10
FRONT SCREEN REMOVAL	11
LOG ASSEMBLY	11
OPERATING INSTRUCTIONS	12-14
CLEANING / SERVICING	14-15
FLAME APPEARANCE	15
PARTS LIST FOR HEATER ASSEMBLY	16-17
PARTS LIST FOR BURNER AND LOG ASSEMBLY	18-19
TROUBLE SHOOTING	20-21
OPTIONAL EQUIPMENT	22
WIRING DIAGRAMS	23-25
NOTES	26
LIMITED WARRANTY POLICY	27

## NOTICE

Installation and repair must be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.

## **IMPORTANT SAFETY INFORMATION**

**INSTALLER:** Please leave these instructions with the owner. **OWNER:** Please retain these instructions for future reference.

**IMPORTANT:** Read these instructions carefully before installing or trying to operate this heater. **WARNING:** Any change to this heater or its controls can be dangerous. Improper installation or use of the heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

- CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating properly.
- 2. The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1.
- 2. This heater shall not be installed in a bedroom or bathroom.
- 4. **WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this owner's manual. Installation and service must be performed by a qualified installer, service agency or the gas supplier.
- 5. To prevent malfunction and/or sooting, a vent-free gas heater should be cleaned at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, etc. It is imperative that control compartments, burners and circulating air passageways be kept clean.
- 6. Correct placement of the ceramic fiber logs is necessary to avoid problems with sooting. Sooting can settle on surfaces outside the heater and cause discoloration. See the appropriate sections of this manual for instructions.
- 7. **WARNING:** Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns. Do not place a blower inside burn area of firebox. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur.
- 8. This is a vent-free gas fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to installation guidelines.
- 9. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.
- 10. Young children should be carefully supervised when they are in the same room with the appliance.
- 11. Do not place clothing or other flammable material near the appliance.

## IMPORTANT SAFETY INFORMATION CONTINUED

- 13. Keep appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- 15. Any safety screen or guard removed for servicing, must be replaced prior to heater operation.
- 16. This vent-free gas heater is intended to be smokeless. If logs appear to smoke, turn off the heater and call a qualified service person. Initial burn off may cause slight smoke and odor during the first four hours of operation.
- 17. Input ratings are shown in BTU per hour and are for elevations up to 2,000 feet. For elevations above 2,000 feet, input ratings should be reduced 4 percent per 1,000 feet above sea level. Refer to the National Fuel Gas Code.
- 18. The appliance and its appliance main gas shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).
- 19. The appliance must be isolated from the gas supply piping system by closing its equipment shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).
- 20. Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control that has been under water.

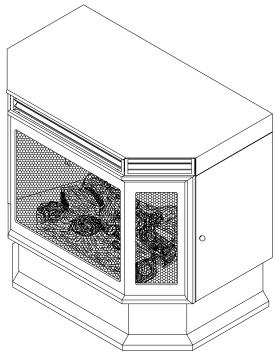
## PRODUCT FEATURES

#### Features:

- Heating Efficiency 99.9%
- Wide BTU Range: 27,000-39,900.
- Safe Operation -

Oxygen Depletion Sensor (ODS).

- Fibre Ceramic Logs.
- 120 CFM Blower
- Push-Button Piezo Ignitor.
- Clean Operation.
- Easy Operation.
- Heats up to 1,200 square feet.
- Optional Remote Control, Wall Switch and Wall Thermostat Kits



9947 Vent-free Gas Pedestal Heater Figure 1.

## 9947 SPECIFICATIONS

#### Natural Gas Propane/LPG

Manifold Pressure Setting: 4" w.c. Manifold Pressure Setting: 10" w.c. Gas Inlet Pressure: Maximum 10-1/2" w.c. Gas Inlet Pressure: Maximum 13" w.c. Minimum 5" w.c. Minimum 11" w.c.

		Gas Rate		Number
Model Number	Type	Max BTU/Hr	Min BTU/Hr	of Burners
9947N	Manual	39,900	27,000	1
9947L	Manual	39,900	27,000	1

#### **Controls** - Main control has 4 positions:

- 1. OFF All gas to the gas logs is shut off at the control
- 2. IGN Piezo ignitor allows ignition of the pilot without the use of matches or batteries
- 3. PILOT Valve position to light/maintain a standing pilot
- 4. ON Gas flow to complete system.

#### HIGH / LOW Control - Infinite control :

Rotate knob clockwise to **LOW**, counter clockwise to **HIGH**.

## **CONTENTS**

#### 9947L and 9947N Unvented Gas Heaters

- 1. Packet containing Homeowner's/Installation instructions.
- 2. Three (3) individually wrapped fiber ceramic logs, refer to installation instructions.
- 3. Unvented gas heater.

#### CHECK THAT ALL LISTED PARTS HAVE BEEN RECEIVED

# CAUTION

## GLOVES ARE RECOMMENDED WHEN HANDLING CERAMIC FIBER LOGS TO PREVENT SKIN IRRITATION FROM LOOSE FIBERS. LOGS ARE FRAGILE, HANDLE WITH CARE.

Carefully inspect the contents for shipping damage and immediately inform your dealer if any damage is found.

## ITEMS REQUIRED FOR INSTALLATION

#### ITEMS REQUIRED FOR INSTALLATION

Ensure that the following items are available before proceeding with installation:

- External regulator (for propane/LPG only)
- Piping which complies with local codes
- Pipe sealant approved for use with propane / LPG (resistant to sulfur compounds)
- Manual cutoff valve
- Sediment trap
- Pipe wrench

#### CODES

Adhere to all local codes or in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSIZ223.1 or NFPA54 which can be obtained from:

#### **American National Standards Institute, Inc.**

1430 Broadway New York, NY 10018

or

National Fire Protection Association, Inc.
Batterymarch Park

Quincy, MA 02269

ARNING

Due to high temperatures, do not install the heater:

- Where curtains, furniture, clothing or other flammable objects are less than
   42" from the front of the heater.
- In high traffic areas.
- In windy or drafty areas.

DO NOT PLACE CLOTHING OF OTHER FLAMMABLE MATERIAL ON OR NEAR THE APPLIANCE.

#### ADEQUATE COMBUSTION AND VENTILATION AIR

This heater shall not be installed in a confined space unless provisions are provided for adequate combustion and ventilation air.

- (a) Walls and ceiling exposed to the outside atmosphere have a continuous water vapor retarded with a rating of 1 perm (6 x  $10^{11}$  kg per pa-sec-m<sup>2</sup>) or less with openings gasketed or sealed , and
- (b) Weather stripping has been added on openable windows and doors, and
- (c) Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, gas lines, and at other openings.

The National Fuel Gas Code defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 BTU per hour (4.8m³ per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space is defined as a space whose volume is not less than 50 cubic feet per 1,000 BTU per hour (4.8m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of that unconfined space.

## **INSTALLATION**

The following formula can be used to determine the maximum heater rating per the definition of unconfined space:

Consider two connecting rooms with an open area between, with the following dimensions: (See Fig. 2, Example)

50 =52800 BTU/HR

If there were a door between the two rooms the calculation would be based only on the room with the heater.

50

=29760 BTU/HR

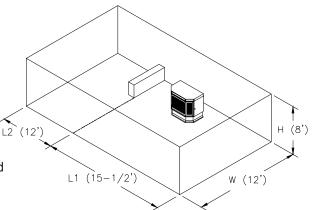


FIGURE 2.

WARNING

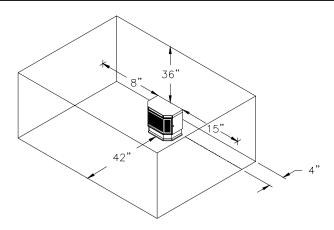
When installing the appliance directly on carpeting, tile or other combustible material, other than wood flooring, the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance.

WARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1, Section 5.3, or applicable local codes.

WARNING

Ensure the minimum clearances shown in FIGURE 3 are maintained for accessibility for purposes of servicing and proper operation. Left and right clearances are determined when facing the front of the heater.



**FIGURE 3. Minimum Clearances** 

Maintain these clearances to ensure adequate space around air opening for proper operation.

Minimum clearances to combustibles:

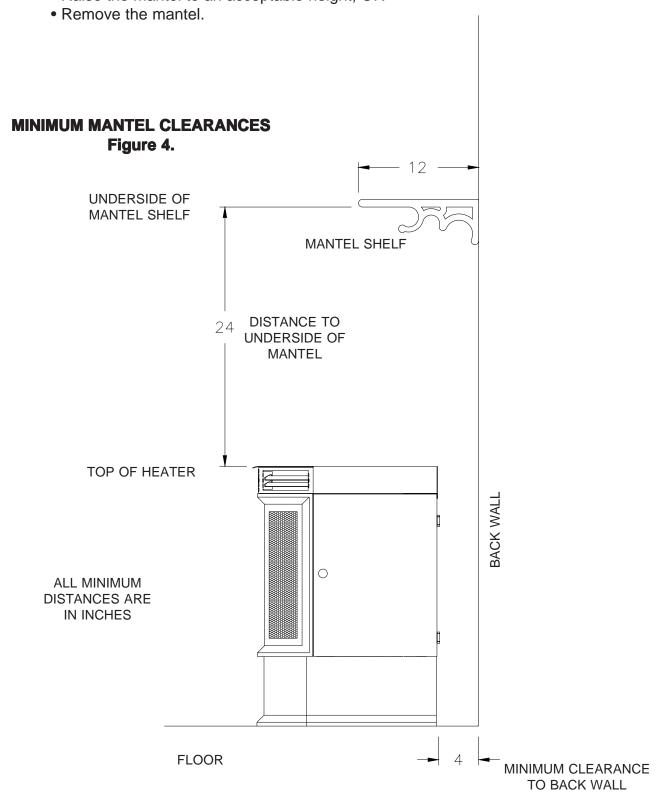
Top of heater	36'
Right Side of heater	15'
Left Side of heater	8'
Front of heater	42'
Rear of heater	4'

## MANTEL CLEARANCES

If placing a custom mantel above the heater, you must meet minimum clearances between mantel shelf and the top of the heater.

If your installation does not meet the below minimum clearances, you must:

• Raise the mantel to an acceptable height, OR



## **GAS CONNECTION**

NOTICE

A qualified gas appliance installer must connect the fireplace to the gas supply. Consult all local codes.

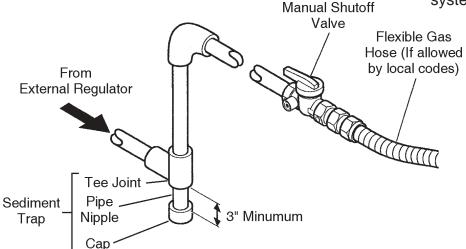
NOLEN

Use new black iron or steel pipe only. Internally tinned copper tubing can be used in some areas when permitted by local codes. Only use pipe of 1/2" or greater diameter to allow full gas volume to heater. Excessive pressure loss will occur if the pipe is too small.

A manual shutoff valve, union and plugged 1/8" NPT pressure tapping point must be installed upstream of the heater (FIGURE 5).

A sediment trap must be installed upstream of the heater to prevent moisture and contaminants from passing through the pipe to the heater controls and burners. Failure to do so could prevent the heater from operating reliably (FIGURE 5).

**IMPORTANT:** Loosen the pipe adapter on the flex tube before installing to the system piping.



**FIGURE 5. Gas Connection** 

**CHECK GAS TYPE:** The gas supply must be the same as stated on heater's rating plate. If the gas supply is different, DO NOT INSTALL the heater. Contact your dealer for the correct model.

WARNING

Connecting directly to an unregulated propane/LPG tank can cause an explosion.

## **GAS CONNECTION**

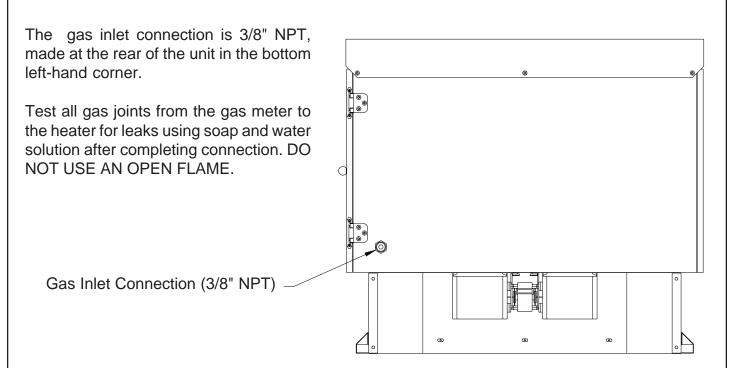


FIGURE 6. Rear View of 9947 Vent-Free Gas Heater

## **GAS PRESSURE CHECK**

The heater regulator controls the burner pressure which should be checked at the pressure test point located on the front of the main control and is accessible by removing the control panel on the right side of the heater.

The pressure should be checked with the heater burning and the control set to high (HI).

The pressure regulator is preset and locked to avoid tampering. If the pressure is not as specified in Product Specifications (Page 5), contact your dealer and replace the regulator.

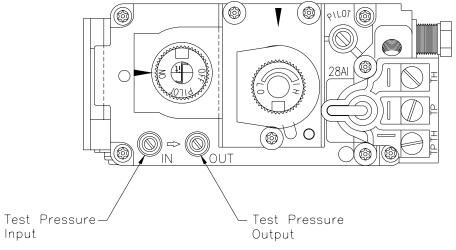
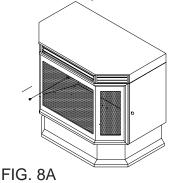
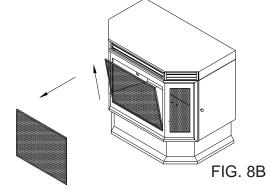


FIGURE 7. Pressure Test Point Location

## REMOVING FRONT SCREEN

**REMOVING FRONT SCREEN: 1)** Remove screw from the top of the screen (Fig. 8A). **2)** Tilt the top of the screen toward you slightly and lift the screen up out of the screen retainer (Fig. 8B). **NOTE:** To reinstall the front screen, reverse steps 1 & 2.





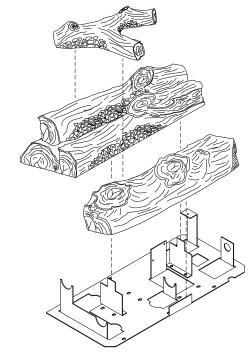
## LOG ASSEMBLY

#### **LOG POSITIONING**

Do not handle these logs with your bare hands! Always wear gloves to prevent skin irritation from ceramic fibers. After handling logs, wash your hands gently with soap and water to remove any traces of fibers.

#### PROPER INSTALLATION SEQUENCE:

WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.



#### FIGURE 9. Log Set Assembly

**NARNING** 

The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly situated in the appliance. Never add additional logs or embellishments such as pine cones, vermiculite or rock wool to the heater.

## OPERATING INSTRUCTIONS

Avoid any drafts that alter the burner flame patterns. Do not allow fans to blow directly into the heater. Do not place a blower inside burn area of firebox. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur.

This vent-free gas heater is intended to be smokeless. If logs appear to smoke, turn off the heater and call a qualified service person. Initial burn off may cause slight smoke and odor during the first four hours of operation.

#### FOR YOUR SAFETY READ BEFORE LIGHTING

NARNING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A.
  This appliance is equipped with an ignition device (Piezo) which automatically lights the pilot.
  If Piezo fails, then light the pilot using matches. Refer to match lighting instructions (page 14).
  When lighting the pilot, follow these instructions exactly.
- B.

  BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS

- Do not attempt to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C.

Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

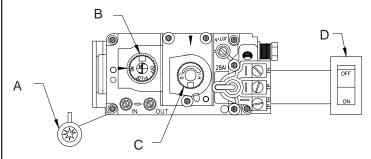
#### **FOR YOUR SAFETY**

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

## **OPERATING INSTRUCTIONS**

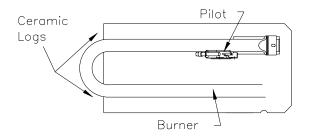
#### **LIGHTING INSTRUCTIONS**

- 1. STOP! Read the safety information on the previous page.
- 2. Set the thermostat to lowest setting.
- 2. Turn off all electrical power and open the access door.
- 3. Push in gas control (B) slightly and turn clock wise to "OFF".
- 5. Push "ON / OFF" switch to "OFF" position.



NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.

- 6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information on the previous page. If you don't smell gas, go on to the next step.
- 7. Depress knob (B) and turn gas control knob counter clockwise to "Pilot".
- 8. Push in knob (B) all the way and hold in. Immediately light the pilot by pushing in on the piezo button (A). Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 4 through 8.



#### TOP VIEW OF BURNER ASSEMBLY

If the knob does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot will not stay lit after several tries, turn control knob to "OFF" and call your gas supplier.

- 9. Turn valve knob clockwise \( \times \to "ON".
- Wait about one minute then turn burner switch (D) to "ON". It will take a few minutes for the thermopile located on top of the pilot to heat up.

NOTE: If unit is equipped with remote "on-off" wall switch, switch must be in "on" position for burner to light.

- 11. Adjust flame height with the high-low knob (C).
- 12. Turn on all electrical power to the appliance.
- 13. Close access door.

NOTE: It is normal for the new heater to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.

It is recommended that you burn your new heater for at least two (2) hours the first time you use it. If optional fan kit is installed, leave it turned off for the break in period.

#### **TURN OFF GAS TO APPLIANCE**

- 1. Open access door.
- 2. Turn switch (D) to "OFF"
- 3. Unplug all electric power if service is to be performed.
- 4. Push in gas control knob slightly and turn clockwise \( \times \) to the "OFF" position.
- Close access door.

## **OPERATING INSTRUCTIONS**

WARNING

Wait 30 seconds before readjusting the heater when the control has been turned down to a lower setting.

#### MATCH LIGHTING INSTRUCTIONS

If the pilot will not light using the piezo ignitor, you can light the pilot with a match. First, locate the pilot. The pilot is located between the two burner tubes on the right end (facing the unit), inside the firebox. To light pilot with a match, move the gas control (knob B, pg. 12) to the pilot position and hold down. Light match and place near pilot. Once pilot is lit, continue to hold the knob for about ten seconds. Then follow steps 7 thru 10 on page 12.

#### **CHECKING FLAME APPEARANCE**

Flames from the pilot, and burner should be visually checked when the heater is installed. In addition a periodic visual check of the flames should be made.

#### PILOT FLAME

The pilot flame should always be present when the heater is in operation and should just touch the top of the thermocouple tip (FIGURE 10).

**FIGURE 10. Pilot Flame** 

If the pilot flame does not touch the thermocouple, then the main burner is unlikely to function reliably (FIGURE 11).

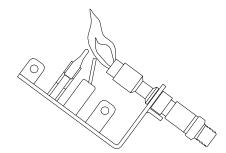


FIGURE 11. Incorrect Shape of Pilot Flame

### **CLEANING / SERVICING**

Annual inspection and cleaning by your dealer or qualified service technician is recommended to prevent malfunction and/or sooting.

WARNING

Turn off heater and allow to cool before cleaning.

Remove front screen, (see page 11). Carefully lift screen from locating stubs and set aside during cleaning. Refer to instructions on page 11 for installation of screen. **Do not operate the unit with the screen removed.** 

Remove logs, handling carefully by holding gently at each end. Gloves are recommended to prevent skin irritation from ceramic. If the skin becomes irritated, wash gently with soap and water. Refer to manual for correct log placement.

## **CLEANING / SERVICING**

#### **Periodic Cleaning**

- Do not use cleaning fluid to clean logs or any part of heater.
- Logs Brush with soft bristle brush or vacuum with brush attachment.
- Vacuum loose particles and dust from the front and rear burner, control, and piezo.
- Inspect burner's and air intake hole. Remove lint or particles with vacuum.
- External case should be dusted and wiped with a wet soapy cloth.

#### **Annual Cleaning/Inspection**

- Inspect and clean burner air intake holes.
- Inspect and clean all burner ports.
- Inspect ODS pilot for operation and accumulation of lint at air intake holes.
- Verify flame pattern and log placement for proper operation.
- Verify smooth and responsive ignition of main burner and rear burner.

## FLAME APPEARANCE

In normal operation at full rate after 15 minutes the following flame appearance should be observed.

#### **FLAMES**

The flames behind log #1, and in between log #2, should be yellow with a blue base. (See Below,

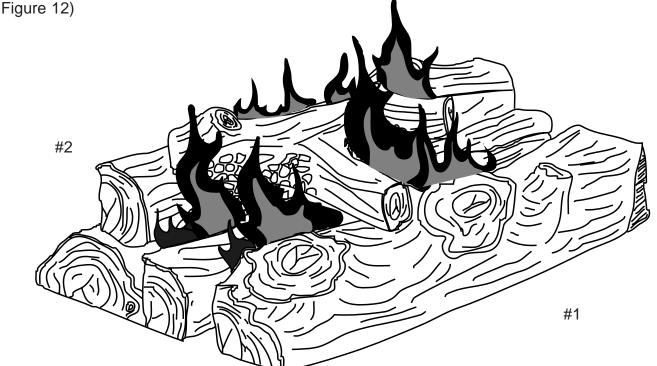
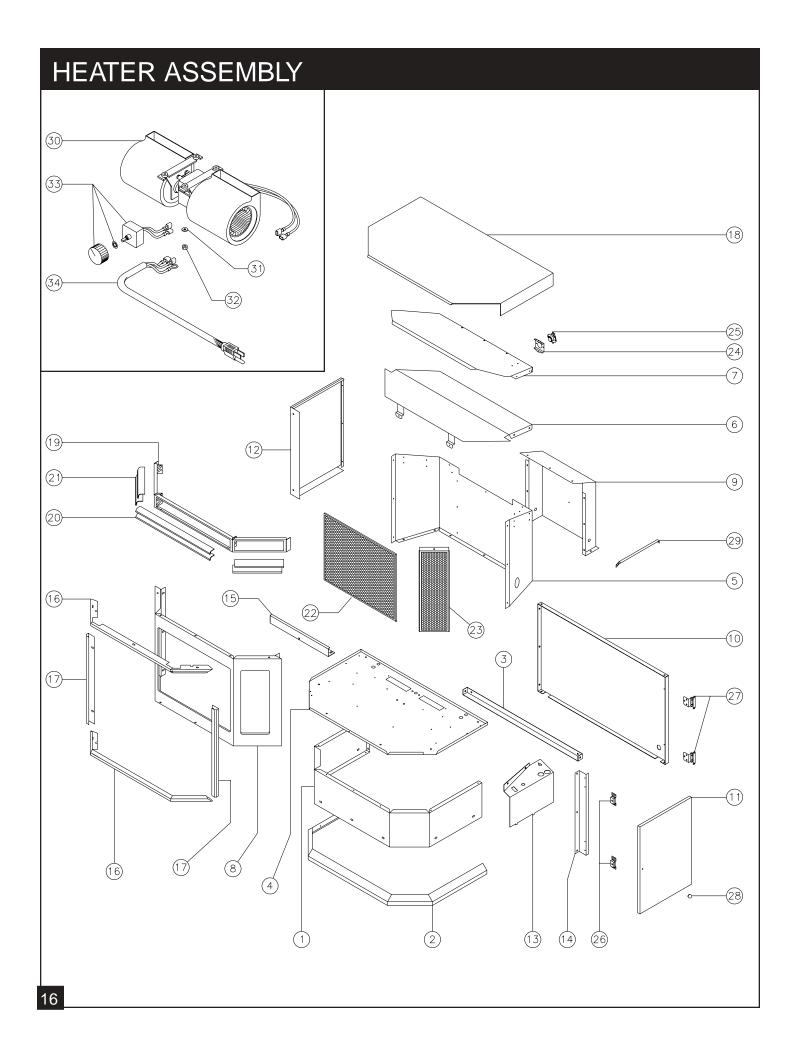


Figure 12. Flames - Natural Gas and LP Gas



## PARTS LIST

KEY	PART NO.	DESCRIPTION	QTY.
1	24775	Pedestal	1
2	24776	Pedestal Trim	1
3	24878	Pedestal Brace	1
4	69243	Firebox Bottom	1
5	24779	Firebox	1
6	69248	Firebox Inner Top	1
7	24782	Firebox Outer Top	1
8	24780	Front	1
9	24783	Blower Box	1
10	24784	Cabinet Back	1
11	24785	Right Side, Cabinet Door	1
12	24786	Left Side, Cabinet	1
13	24787	Control Cover Box	1
14	24879	Latch Bracket	1
15	24880	Front Screen Retainer	1
16	24790	Front Trim, Top & Bottom	2
17	24791	Front Trim, Side	2
18	24789	Cabinet Top	1
19	24792	Louver Frame	1
20	89933	Long Louver	2
21	89934	Short Louver	4
22	24795	Front Screen	1
23	24794	Side Screen	2
24	86483	Thermodisc Bracket	1
25	80381	Thermodisc	1
N/S	83351	#8 x 3/8 Hex Head Screw	2
26	89824	Latch	2
27	89811	Hinge	2
28	89943	Knob, Cabinet Door	1
29	24796	Support, Right Cabinet	1
N/S	83172	#10A x 1/2 Hex Head Screw	93
30	83888	120 CFM Blower	1
31	83278	#10 Flat Washer	4
32	83244	10-24 Kep Nut	4
33	80090	Rheostat w/Nut	1
•	•	Rheostat Knob (Included with Rheostat)	1
34	80232	Power Supply Cord	1
N/S	89390A	Rubber Grommet	3
N/S	80109	Strain Relief Bushing	1
N/S	83005	#10-24 x 1/2 Machine Screw	5
N/S	80425	Wire Assembly (28" black wire)	1
N/S	80426	Wire Assembly (12" black wire)	1

N/S = Not Shown

## BURNER AND LOG ASSEMBLY 3 -17-- 16 - 15 10-

## PARTS LIST

KEY	PART NO.	DESCRIPTION	QTY.
1	24777	BURNER PLATE	1
2	89920	BURNER	1
3	89921	"O.P. AMERICA" NAT. PILOT	1
•	89922	"O.P. AMERICA" L.P. PILOT	1
N/S	83172	#10A x 1/2 SCREW	7
4	89842	COMPRESSION SLEEVE	1
5	89841	COMPRESSION NUT	1
6	81201	PILOT TUBE	1
7	24788	CONTROL BRACKET	1
8	81198	CONTROL VALVE (NATURAL)	1
•	81202	CONTROL VALVE (L.P.)	1
9	83464	#10-32 x 3/8 MACHINE SCREW	4
10	89918	GAS LINE (NATURAL)	1
•	89923	GAS LINE (L.P.)	1
11	C42373	ROCKER SWITCH	1
12	80376	WIRE ASSEMBLY	2
13	89761	PIEZO IGNITOR	1
14	80423	PIEZO CABLE	1
15	81199	KNOB EXTENSION (ON / OFF)	1
16	81200	KNOB EXTENSION (HI / LOW)	1
17	24888	LOG SUPPORT	2
18	89940	FRONT LOG	1
19	89939	REAR LOG	1
20	89941	CROSS LOG	1

N/S = NOT SHOWN

## TROUBLE SHOOTING

WARNING

## Turn off and let cool before servicing. Only a qualified service person should service and repair heater.

NOTE: All troubleshooting items are listed in order of operation.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
OBSERVED PROBLEM		
	Ignitor electrode positioned wrong	Replace ignitor.
	• Ignitor electrode is broken	Replace ignitor.
When ignitor button is pressed, there is no spark at ODS/Pilot.	• Ignitor electrode not connected to ignitor cable.	Reconnect ignitor cable.
	• Ignitor cable pinched or wet keep ignitor cable dry.	• Free ignitor cable if pinched by any metal or tubing.
	Broken ignitor cable	Replace ignitor cable.
	Bad piezo ignitor	Replace piezo ignitor.
Appliance produces unwanted odors.	Appliance burning vapors from paint, hair spray, glues, etc.	Ventilate room. Stop using odor-causing products while heater is running.
	Gas leak.	Locate and correct all leaks.
Appliance shorts off in use	Not enough fresh air is available for ODS/ Pilot to operate.	Open window and/or door ventilation
Appliance shuts off in use.	• Low line pressure.	Contact local gas company.
	ODS/Pilot is partially clogged.	Clean ODS/Pilot.
Gas odor even when control knob is in	Gas leak.	Locate and correct all leaks.
OFF position.	Control valve defective.	Replace control valve.
	Gas supply turned off or manual shutoff valve closed.	• Turn on gas supply or open manual shutoff valve.
When ignitor button is pressed, there is spark at ODS/Pilot, but no ignition.	<ul> <li>Control knob not in PILOT position.</li> <li>Control knob not pressed in while in Pilot position</li> <li>Air in gas lines when installed.</li> </ul>	<ul> <li>Turn control knob while in PILOT position.</li> <li>Press in control knob while in PILOT position.</li> </ul>
	ODS/Pilot is clogged.	<ul> <li>Continue holding down control knob.</li> <li>Repeat igniting operation until air is removed</li> </ul>
	Gas regulator setting is not correct.	<ul> <li>Replace ODS/pilot assembly or get is serviced</li> </ul>
	Control knob not fully pressed in.	
ODS/Pilot lights, but flame goes out when control knob is released.	Control knob not pressed in long enough.	<ul><li>Replace gas regulator.</li><li>Press in control knob fully.</li></ul>
	Manual shutoff valve not fully open.	• After ODS/pilot lights, keep control knob pressed in 30 seconds.
20		• Fully open manual shutoff valve.

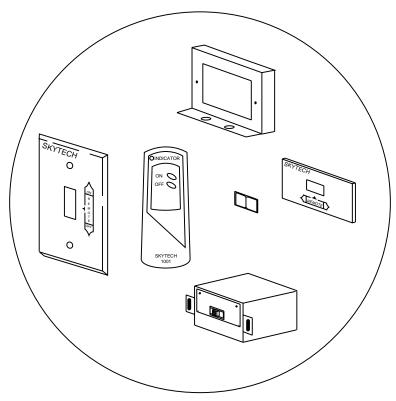
## TROUBLE SHOOTING

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
ODS/Pilot lights, but flame goes out When control knob is released. (continued from page 20)	<ul> <li>Thermocouple connection loose at control valve.</li> <li>Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by either low gas pressure, or a dirty or partially clogged ODS/pilot.</li> </ul>	<ul> <li>Hand tighten until snug, then tighten 1/4 turn more.</li> <li>Contact local gas company.</li> </ul>
	<ul><li>Thermocouple damaged.</li><li>Control valve damaged.</li></ul>	<ul><li>Replace thermocouple.</li><li>Replace control valve.</li></ul>
One or both burner do not light after ODS/pilot is lit.	<ul><li>Burner orifice is clogged.</li><li>Burner orifice diameter is too small.</li></ul>	<ul><li>Clean burner or replace burner orifice.</li><li>Replace burner orifice.</li></ul>
	Inlet gas pressure is too low.	Contact qualified service person.
Burner backfires during combustion.	<ul><li>Manifold pressure is too low.</li><li>Burner orifice is clogged.</li></ul>	<ul><li>Contact local gas company.</li><li>Clean burner or replace burner orifice.</li></ul>
Slight smoke or odor during initial operation.	<ul> <li>Burner orifice is clogged or damaged.</li> <li>Burner is damaged.</li> <li>Gas regulator defective.</li> </ul>	<ul> <li>Clean burner or replace burner orifice.</li> <li>Replace burner.</li> <li>Replace gas regulator.</li> </ul>
Logs appear to smoke after initial operation.	Vapors from paint or curing process of logs.	<ul> <li>Problem will stop after a few hours of operation. Run the heater with the damper open if you have one, or open a window for the first few hours.</li> <li>Log heater is intended to be smokeless. Turn OFF heater and call qualified service person.</li> </ul>
Heater produces a whistling noise when burner is lit.	<ul><li>Turning control knob to HIGH position when burner is cold.</li><li>Air in gas line.</li></ul>	<ul> <li>Turn control knob to LOW position and let warm up for a minute.</li> <li>Operate burner until air is removed from line. Have gas line checked</li> </ul>
	Dirty or partially clogged burner orifice.	<ul><li>by local gas company.</li><li>Clean burner or replace burner orifice.</li></ul>
No gas to pilot.	<ul> <li>LP-regulator shut down due to inlet pressure too high.</li> </ul>	<ul> <li>Verify LP tank regulator is installed and set to 11" to 13"w.c. Replace regulator on heater.</li> </ul>

WARNING

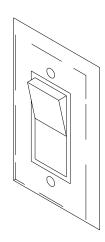
If the gas quality is bad, your pilot may not stay lit, the burners may produce soot and the heater may backfire when lit. If the gas quality or pressure is low, contact your local gas supplier immediately.

## OPTIONAL EQUIPMENT



MODEL: RCK60 REMOTE CONTROL KIT

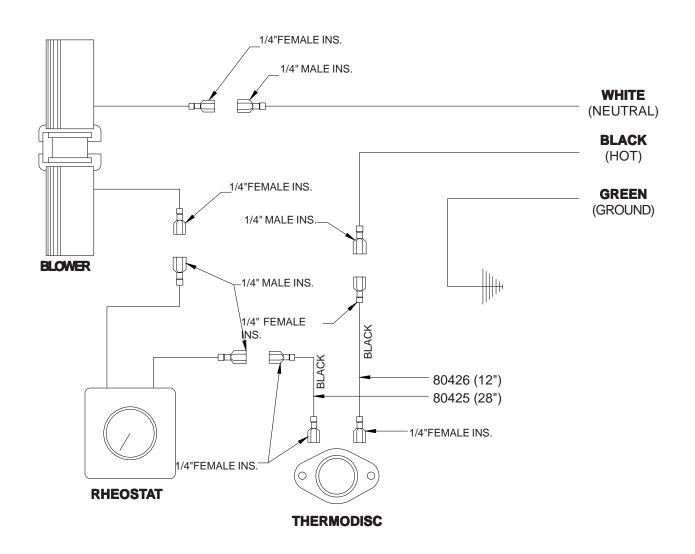
> MODEL: WSK60 WALLSWITCH KIT



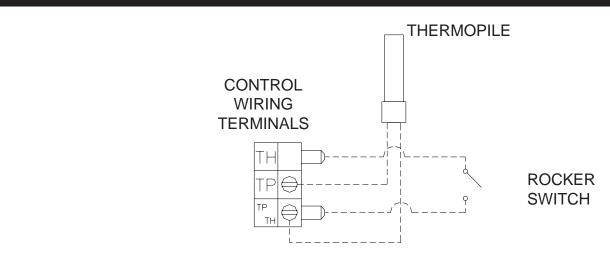


MODEL: WTK60 WALLTHERMOSTAT KIT

## WIRING DIAGRAM FOR BLOWER ASSEMBLY



## WIRING DIAGRAM FOR GENERATOR ASSEMBLY



## WIRING GUIDE FOR 9947

The following Wiring Guide is to help assist in the wiring of any combination of the Optional Kit listed below:

**RCK60 - REMOTE CONTROL KIT** 

WSK60 - WALL SWITCH KIT

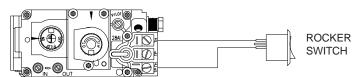
WTK60 - WALL THERMOSTAT KIT

IMPORTANT: Before ordering or installing any to the available kits, remember the following...

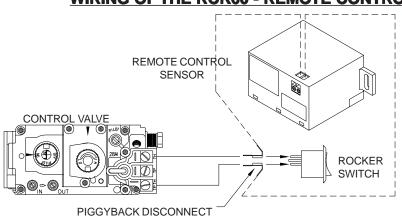
- 1) Not all Optional Kits will work together. Example: The (RCK60) Remote Control Kit, the (WSK60) Wall Switch Kit, and the (WTK60) Wall Thermostat Kit cannot be used at the time
- 2) When using any of the three Optional Kits listed above, the Rocker Switch on the unit must be set to "OFF".
- 3) If you choose to use any combination of the above Optional Kits, only one of those kits can be used at a time. Example: If you have the Optional Remote Control Kit and the Optional Wall Switch Kit, operation of the unit must be controlled by one or the other. If you want to use the remote control, simply turn the Wall Switch to "OFF".

#### STANDARD WIRING FROM FACTORY:

CONTROL VALVE

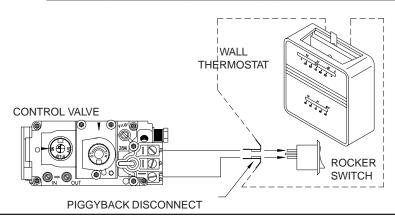


#### WIRING OF THE RCK60 - REMOTE CONTROL KIT:



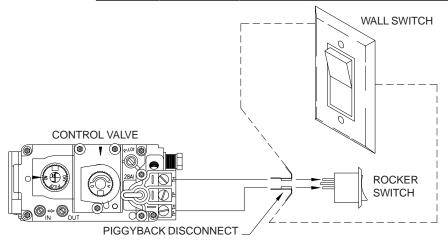
Remember the Rocker Switch must be turned to "OFF" while using the Remote Control.

#### **WIRING WITH THE WTK60 - WALL THERMOSTAT KIT:**



Remember the Rocker Switch must be turned to "OFF" while using the Wall Thermostat.

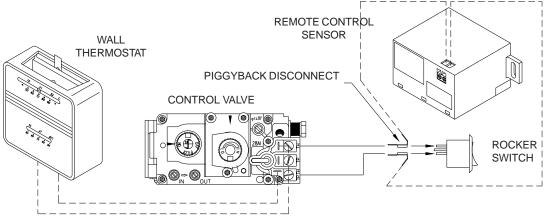
#### **WIRING WITH THE WSK60 - WALL SWITCH KIT:**



Remember the Rocker Switch must be turned to "OFF" while using the Wall Switch.

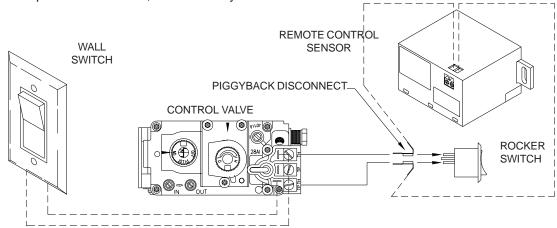
## WIRING WITH THE WTK60 - WALL THERMOSTAT KIT AND THE RCK60 - REMOTE CONTROL KIT:

Note: When combining these Optional kits, only one kit can be used at a time. Example: If you want to control the operation of this unit with the Remote Control then you must turn the Wall Thermostat "OFF". When trying to use two Optional kits at once, one will always override the other.



## WIRING WITH THE WSK60 - WALL SWITCH KIT AND THE RCK60 - REMOTE CONTROL KIT:

Note: When combining these Optional kits you must remember that only one of them can be used at a time. Example: If you want to control the operation of this unit with the Remote Control then you must turn the Wall Switch "OFF". When trying to use two Optional kits at once, one will always override the other.



For further information, contact our Customer Service Department at United States Stove Company, 227 Industrial Park Road, P.O. Box 151, South Pittsburg, Tn. 37380. (423)837-2100

NOTES	
26	

### **LIMITED WARRANTY POLICY**

This vent-free gas heater is warrantied for a period of one year, logs for one year, and burners for One Year, from date of purchase against defects in material or workmanship. This warranty covers only the cost of defective parts and applies only to the original consumer purchaser. The replacement of defective parts will be without charge. This warranty does not extend to (1) heater damage by accident, neglect, misuse, abuse, alteration, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the heater, or (3) incidental or consequential damage.

THIS WARRANTY IS EXPRESSLY IN LIEU OF OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OF FITNESS FOR PURPOSE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES, UNITED STATES STOVE COMPANY DOES NOT ASSUME FOR IT, ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH THE SALE OR USE OF THIS HEATER.

The heater (MUST BE INSTALLED BY A QUALIFIED INSTALLER) in accordance with the instructions furnished with the unit. The defective heater should be returned at your expense to the dealer from whom the product was purchased or an authorized service agent. Any products presented for warranty repair must be accompanied by a dated proof of purchase. Since some states do not allow the exclusion on limitation of incidental or consequential damages, or on how long an implied warranty lasts, the above limitations may not apply to you.

## **OWNERS MANUAL**

#### HOW TO ORDER REPAIR PARTS OR "OPTIONS"

THIS MANUAL WILL HELP YOU TO OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM THE FURNACE, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY.

KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

WHEN WRITING, ALWAYS GIVE THE FULL MODEL NUMBER WHICH IS ON THE NAME PLATE ATTACHED TO THE BACK OF THE HEATER.

WHEN ORDERING REPAIR PARTS OR OPTIONS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

- 1. The **PART NUMBER**
- 2. The **PART DESCRIPTION**
- 3. The MODEL NUMBER: C9947N / C9947L
- 4. The **SERIAL NUMBER**

BEFORE INSTALLING YOUR HEATER, FILL IN THE SERIAL NUMBER IN THE SPACE PROVIDED ABOVE FOR YOUR RECORDS.



#### **UNITED STATES STOVE COMPANY**

227 Industrial Park Rd., P.O. Box 151 South Pittsburg, TN 37380 (423) 837-2100